State of Alaska
FY2010 Governor's Operating Budget

Department of Natural Resources
Water Development
Component Budget Summary

Component: Water Development

Contribution to Department's Mission

To facilitate the development and stewardship of Alaska's water resources by authorizing its beneficial uses.

The work within the Water Development Budget Component is intended to accomplish three outcomes:

I. Manage, Allocate, and Protect the State's Water Resources, and Administer Water Rights
II. Provide Technical Hydrologic Support
III. Ensure Safe Operation and Construction of Jurisdictional Dams

Core Services

- Provide water rights and temporary water use authorizations to industry and individual Alaskans
- Provide scientific hydrologic expertise and maintain hydrologic data for use by state government and the public
- Protect public safety and property through ensuring safe dams

End Result	Strategies to Achieve End Result
A: Business and individuals obtain water authorizations for which they apply. Target #1: Process 100% of new water right applications received. Status #1: The Division met this target in principle by processing the same number of water rights as applications received. Target #2: Process 100% of new temporary water use authorizations received. Status #2: The division was able to process most (88%) of the Temporary Water Authorization requests.	**A1: Process water rights and temporary water use authorizations within expected timelines** Target #1: Process new water right applications within 6 months. Status #1: The time it takes to process new water rights has increased to 15 months. Target #2: Process temporary water use applications within 3 weeks. Status #2: The division did not meet its target of processing temporary water use authorizations within 3 weeks of receiving authorizations. Target #3: Eliminate 10% to 15% of backlog of water right applications. Status #3: The division was able to reduce the number of backlogged water rights because it processed more applications than it received.
End Result	**Strategies to Achieve End Result**
B: Provide hydrologic data to the public, industry, and agencies that can be used to determine appropriate use of state water resources. Target #1: Provide information, analysis, and response to 1,000 hydrologic customer requests. Status #1: The division responded to over 1,300 hydrologic customer requests.	**B1: Post hydrologic data on public well site and provide analysis of hydrologic issues.** Target #1: Post 100% of new well data received on the WELTS data base web site. Status #1: 100% of new well data received was added to the WELTS database during FY08. Target #2: Respond to 100% of requests for analysis of hydrologic issues.

	Status #2: An estimated 90 % of requests for hydrologic issues were addressed. Target #3: Provide hydrologic support to 100% of major industrial projects where requested. Status #3: All known (100%) of major industrial projects where hydrologic support was requested were addressed.
End Result	**Strategies to Achieve End Result**
C: All dams under DNR jurisdiction are operated safely without failure. Target #1: No jurisdictional dams fail. Status #1: With active oversight and inspections, the division was able to insure no jurisdictional dams failed.	**C1: Obtain compliance with regulations that were established to assure the safety of dams under state jurisdiction.** Target #1: A current periodic safety inspection on 60% of jurisdictional dams. Status #1: The division almost reached its target by having 58% of the jurisdictional dams with current periodic safety inspections.

Major Activities to Advance Strategies

- Process 250 new water right applications with a median cycle time of 6 months.
- Issue 150 temporary water use authorizations with a median cycle time of 3 weeks.
- Issue 6 new instream flow reservations.
- Process 100 backlog water right applications.
- Complete entry of a total estimated 1000 well logs received into the WELTS database.
- Provide hydrologic data analysis and interpretation for an estimated 200 requests for assistance.
- Provide hydrologic support to 8 major industrial projects such as Point Bullen, and North Slope ice road development.
- Participate in the ACWA process.
- Secure matching funds needed to support hydrologist positions.
- Provide notice to owners of dams with due or over due periodic safety inspections.
- Review & approve periodic safety inspection reports submit to the State and issue Cert. of Approval to Operate a Dam to owners in compliance w/regs.
- Review applications and issue Certificates of Approval to construct, repair, modify, remove or abandon a dam.
- Process 50 water right extensions, amendments, and revocations, or instream flow applications associated with new water right applications.
- Work with the well drillers association to encourage greater compliance with submission of well logs.
- Hire an Engineering Assistant for the Dam Safety Unit.
- Hire two additional water right adjudicators for the Water Management Unit.
- Fund the Alaska Hydrologic Survey and Water Management Units with additional General Funds.

FY2010 Resources Allocated to Achieve Results

FY2010 Component Budget: $1,926,000

Personnel:	
Full time	17
Part time	0
Total	17

Performance

A: Result - Business and individuals obtain water authorizations for which they apply.

Target #1: Process 100% of new water right applications received.
Status #1: The Division met this target in principle by processing the same number of water rights as applications received.

Water Rights (WR)

Year	WR processed	YTD Total
2008	211	100%
2007	229	63%
2006	153	90%
2005	185	60%
2004	244	90%
2003	365	100%

Analysis of results and challenges: In addition to processing these permits, there is an increase in permit compliance issues, field inspections, and enforcement actions and litigation of AS 46.15.080 decisions and violations of the Water Use Act.

The transportation, mining, and oil and gas industries, along with community development are dependent on the use of state water appropriation. When authorizations are not provided in a timely fashion, there can be delays in projects, or even the prevention of the project. Water use competition is growing in Alaska with more and more legal challenges to various types of water use authorizations. If these permits are not evaluated properly, there is a risk of individuals and businesses losing their right to appropriate water through legal challenges.

Target #2: Process 100% of new temporary water use authorizations received.
Status #2: The division was able to process most (88%) of the Temporary Water Authorization requests.

Percentage of new Temporary Water Use Auth. Processed

Year	TWUAs processed	YTD Total
2008	216	88%
2007	175	91%
2006	115	100%
2005	160	100%
2004	95	100%
2003	292	100%

Analysis of results and challenges: Due to increased application volume and staff shortage, the target of processing 100% of new Temporary Water Use Applications was not reached. These applications are the unit's highest priority and are processed within 4 weeks of receipt.

Temporary Water Use Permits are used frequently in conjunction with short term construction projects such as oil and gas ice roads and DOT/PF road construction projects.

A1: Strategy - Process water rights and temporary water use authorizations within expected timelines

Target #1: Process new water right applications within 6 months.
Status #1: The time it takes to process new water rights has increased to 15 months.

Median Cycle Time

Year	Months
2008	15
2007	6
2006	2
2005	6
2004	6

Analysis of results and challenges: Water rights are becoming more complex and contentious in many developed areas. Staff is having to spend more time dealing with the conflicts over water use which takes away time from processing water rights. Staff turnover and training new staff takes away from actual adjudication and slows the processing times.

Target #2: Process temporary water use applications within 3 weeks.
Status #2: The division did not meet its target of processing temporary water use authorizations within 3 weeks of receiving authorizations.

Median Cycle Times

Year	Weeks
2008	4
2007	4
2006	3
2005	4
2004	3

Analysis of results and challenges: In FY 2008 there were increased applications over the previous year, and the staff was able to process most all of these applications, but with the increased workload, the processing cycle times remained slower. This allowed for the use of water by industry for project development and construction associated with oil and gas exploration, road construction, mining, and other temporary water uses.

Target #3: Eliminate 10% to 15% of backlog of water right applications.
Status #3: The division was able to reduce the number of backlogged water rights because it processed more applications than it received.

Backlogged Water Rights

Year	# processed	YTD Total
2008	94	18%
2007	35	6%
2006	100	24%
2005	19	5%
2004	80	15%

Analysis of results and challenges: Currently the WMU has over 524 backlogged water right applications pending adjudications. This unit was committed to adjudicating all new applications submitted in FY 2008 and 100 of the backlog applications. Some of the backlog applications were adjudicated because they were associated with new applications (in the same area or taking water from the same source). The other backlog applications will be adjudicated in the order they are received. There is little hope of ever eliminating the backlog of water rights applications at current staff levels.

There may be some slight discrepancies in backlog figures this year as we switched the computer reporting system and we potentially had missed some of the previously reported backlog figures.

B: Result - Provide hydrologic data to the public, industry, and agencies that can be used to determine appropriate use of state water resources.

Target #1: Provide information, analysis, and response to 1,000 hydrologic customer requests.
Status #1: The division responded to over 1,300 hydrologic customer requests.

Year	YTD Total
2008	1,300
2007	1,262
2006	1,200
2005	1,258
2004	2,038

Analysis of results and challenges: This represents customers served by specific hydrologic requests, and industry support requests. Availability of the WELTS system frees staff time to address other issues, and therefore the tally of computer WELTS site visits does represent customers served. Many of these on-line data requests would have been individual data requests without access to the web portal. The WELTS system continues to experience increased usage, with the number of hits during FY08 more than 11% higher than in FY06.

B1: Strategy - Post hydrologic data on public well site and provide analysis of hydrologic issues.

Target #1: Post 100% of new well data received on the WELTS data base web site.
Status #1: 100% of new well data received was added to the WELTS database during FY08.

Percentage of Well Data Posted

Year	YTD Total
2008	100%
2007	78%
2006	100%
2005	80%
2004	100%
2003	100%

Analysis of results and challenges: Of 480 well logs received during FY08, all were added to the WELTS database, comprising 100% compliance with goals. This target was met due to allocation of staff to complete the project as outlined.

Target #2: Respond to 100% of requests for analysis of hydrologic issues.
Status #2: An estimated 90 % of requests for hydrologic issues were addressed.

Percentage of Responses

Year	YTD Total
2008	90%
2007	75%
2006	100%
2005	100%
2004	100%
2003	100%

Analysis of results and challenges: Continued inability to recruit for a vacant AHS Hydrologist position with expertise in ground water has resulted in an inability to address some of the more technical issues associated with groundwater modeling. Existing staff have addressed what issues that could be done with existing expertise. However some issues were left unaddressed or left to private consultant.

Target #3: Provide hydrologic support to 100% of major industrial projects where requested.
Status #3: All known (100%) of major industrial projects where hydrologic support was requested were addressed.

Percentage of Requests Supported

Year	YTD Total
2008	100%
2007	100%
2006	100%
2005	100%
2004	100%
2003	100%

Analysis of results and challenges: Continued monitoring and or review of data of existing mining sites such as Usibelli Coal and Red Dog, as well as review of hydrologic data associated with water rights issues for North Slope oil industry operations have continued. New emphasis has been placed on the potential development at the proposed Pebble Mine in South West Alaska. Hydrologic support for that project has included both review of data, as well as analysis of instream flow applications for water rights that were likely initiated by the potential large scale mine development.

C: Result - All dams under DNR jurisdiction are operated safely without failure.

Target #1: No jurisdictional dams fail.
Status #1: With active oversight and inspections, the division was able to insure no jurisdictional dams failed.

Number of failures

Year	YTD Total
2008	0
2007	0
2006	0
2005	0
2004	0
2003	0

Analysis of results and challenges: Zero dam failures indicate that the objectives of the Alaska Dam Safety Program were met for the year. However, only certain dams in Alaska fall under the jurisdiction of ADNR regulations. Those dams are defined in AS 46.17.900(3). Although generally rare, the consequences of a dam failure can be dramatic. Dams generally fail through lack of proper design, construction, maintenance or operation, although natural disasters can contribute to the failure of the best designed and constructed dams. All jurisdictional dams must be regularly inspected and evaluated to determine if remediation to prevent a dam failure is required. However, many of the dams under state jurisdiction were constructed before the dam safety regulations were effective. Achieving full compliance for all of the jurisdictional dams requires cooperation from dam owners who may be constrained by budgets, schedules, incentive and other factors.

The division dam engineer worked on many dam projects throughout the state. Some of the large mining projects require a considerable amount of review because of the need for water impoundment.

C1: Strategy - Obtain compliance with regulations that were established to assure the safety of dams under state jurisdiction.

Target #1: A current periodic safety inspection on 60% of jurisdictional dams.
Status #1: The division almost reached its target by having 58% of the jurisdictional dams with current periodic safety inspections.

Percentage of inspections

Year	YTD Total
2008	58%
2007	53%
2006	54%
2005	55%
2004	49%
2003	51%

Analysis of results and challenges: In FY08, 6 dams were subjected to a periodic safety inspection, which results in 58% of the 78 dams under state jurisdiction with a current periodic safety inspection. The regulations require the dam owner to hire a qualified engineer to conduct this inspection and submit a report to the state. In addition, the regulations require the State Dam Safety Engineer to review and approve the inspection reports for these dams. Because the inspection may occur in one fiscal year, and the report may not be submitted, reviewed and approved until the following fiscal year, the measure is based on the date of the visual inspection of the dam.

All jurisdictional dams are subject to a periodic safety inspection, but not every dam is inspected each year. The inspection interval is dependent on the hazard potential classification of the dam. Class I (high) and Class II (significant) hazard potential dams are typically inspected every three years. Class III (low) hazard potential dams are to be inspected every five years. Hazard potential classification is based on an estimate of the probable consequences of the dam failure, regardless of the condition of the dam. In contrast, risk takes into account the condition of the dam and the probability of its failure, in addition to the hazard potential classification.

In any given year, a certain number of dams will be due for a new inspection while a certain number of dams will be overdue for an inspection, mostly those that are habitually out of compliance. The percent of dams in compliance is a measure of the cooperation of dam owners with the Alaska Dam Safety Program. The Dam Safety and Construction Unit promote cooperation with the Alaska Dam Safety Program, while balancing enforcement of the dam safety regulations based on the apparent risk that a specific dam represents. Compliance in any given year is contingent on a number of factors including the dam owner's incentive, budget and schedule, as well as weather, project understanding and staff workload.

Because of our reliance on voluntary compliance, our goal is at least 60% compliance, though we try to achieve more.

Key Component Challenges

The complexity, competing interests, growing demands, and controversial developments of water appropriations are all adding to the workload of the division, and as a result processing time and application backlogs are increasing. Other responsibilities and issues challenging the division are: water use violations requiring inspections, enforcement, and occasionally litigation; stressed aquifers in urban areas requiring innovative mitigating measures; outreach efforts to educate developers, engineers, and homeowner’s associations on water law and water resources; development of statewide well construction standards; Federal Energy Regulatory Commission hydropower re-licensing negotiations; regional climate changes; significant population growth; unresolved water rights amendments; critical water management area adjudications; water use monitoring and permit compliance; contentious mining project adjudications, revocations and proper decommissioning of water intake structures; and federal reserved water rights claims. We currently have 3,000+ permit extensions, certificate amendments, and revocations pending action. Delays in adjudicating water rights and issuing permits results in the inability of industry to finance and develop projects in Alaska that create jobs and contribute to state revenue. It also results in improper use of water resources, when timely permitting is not a reasonable alternative.

Other Challenges:

- The ability of the Alaska Hydrologic Survey (AHS) to provide necessary technical hydrologic information to state, federal and municiapl governments, as pressures for more hydrologic support increase
- Recruitment of technical professional staff with the scientific knowledge of subsurface hydrogeology necessary to address the key issues faced by users of ground water resources
- Need for development of regulations for the water well drilling industry to protect state interests and those of well owners. Estimates put the number of domestic water wells in the state at over 100,000. The state's

Well Log Tracking System (WELTS) database has approximately 33,000 wells in the database; just 30% of likely existing wells statewide. Additional regulations mandating compliance with well data submission is needed.

Significant Changes in Results to be Delivered in FY2010

The Water Management Unit's goal is to provide opportunities for use of state water resources through adjudication and issuing of permits. Currently, a new water right application will be adjudicated within 6 months, and a typical temporary water right use authorization completed within 3 weeks. This length of turnaround time results in a backlog of applciations. It is expected that the backlog will increase in FY10 due to the volume of applications received, and the increasing complexity, controversy and litigation associated with new applications.

Continuation of the cooperative Mat-Su ground water study which began in FY09 (CIP Funded) should provide additional well logs for existing wells that are not now included in the state's Well Log Tracking System (WELTS) database. Areas near Wasilla have developed with relatively high housing densities that are all exclusively dependent upon ground water as a source for domestic water. This concentrated use of the ground water resource has resulted in what are now isolated occurrences of insufficient water availability. The underlying purpose of this evaluation of the area aquifers is to prevent what are now isolated problems from becoming widespread; to allow for the best use in the allocation of the water resource providing an adequate safe water supply to all local residents.

Howver, outside of the Mat-Su study, and without some form of industry self-regulation for well log submission compliance, the number of omissions in the state's Well Log Tracking System (WELTS) will continue to grow.

Major Component Accomplishments in 2008

Processing Water Rights - The Water Management Unit processed 68% of the water rights applications received during FY2008, even with additional adjudication work resulting from increased competition for water sources and enforcement actions.

Processing Temporary Water Use Authorizations - The Water Management Unit processed 91% of the Temporary Water Use Authorization applications received. To ensure that the authorizations can withstand any legal challenges, staff went to unusual lengths to ensure that the record showed that staff had gone above and beyond procedures requirements for issuing the authorizations and reflected documentation that showed the environment would be protected. The lack of litigation is a significant change and increased the reliability of the authorizations for the applicants.

In FY2008, the unit processed permits or temporary water use authorizations for several projects such as the Pebble Mine, Chevron White Hill exploration, Kensington Mine, Northern Region ADOTPF road construction and maintenance, and Anadarko Gubit Foothills exploration.

The Unit also asserts the state's interest and authority in water allocation issues raised by federal actions. Finally, staff manages more than over 22,000 adjudicated water property rights, water use files and pending applications.

The ***Alaska Hydrologic Survey Unit*** (AHS) provided Division staff with hydrologic data and data analysis for support of adjudication and issuance of temporary water use authorizations and water rights throughout the State. Legal issues pertaining to protection of private property and property rights through illegal diversions and use of water and drainage of aquifers associated with gravel extractions were successful. Increased participation in the hydrologic data interpretation needs for the protection of instream flows for the preservation of habitat through the State’s instream flow reservation process has also proven successful. Continued participation in the State’s Large Mine Project Team including, such as participating in studies for the controversial Pebble Copper mine project and oversight of the operational Red Dog Mine, are essential services AHS provides.

In all, AHS has met its goals, with an over 1300 individual requests for hydrologic assistance, the posting of all 480 additional water well logs received to the WELTS system bringing the total number of well logs to over 33,000 individual wells; oversight of hydrologic data needs for issuance of temporary water use permits for North Slope oil field operations, participation in 5 active major industrial mine projects (Usibelli, Red Dog, Pogo, Fort Knox, Rock Creek); participation in 2 industrial mining projects in the exploration phase (Pebble, Donlin,); participation in the

closing of the Nixon Fork mine; and numerous small projects. The continued success of the WELTS online database giving access to groundwater data statewide is evidenced by the 16,650 "hits" recorded during FY2008. Without the online system an unknown number of individual requests requiring manual AHS staff retrieval of data would have reduced to nearly eliminated AHS staff availability to support many of the other projects/support issues completed.

The Dam Safety and Construction Unit issued a Certificate of Approval to Operate, Construct, Modify, Remove, or Abandon a Dam for 15 dams in Alaska in FY2008 including, the approval to construct the Walter Creek Heap Leach Pad Dam at Fort Knox Mine and the approval to abandon the Upper Cannery Tailing Impoundment Dam at the Greens Creek Mine. Two Emergency Action Plans were exercised, and six new or updated plans were received. There are 19 Emergency Action Plans now on file, bringing the level of compliance to 37%, although now less than half of these plans are current. A Periodic Safety Inspections occurred on 6 dams, but that actually raised g the level of compliance to 58%, only two points below our compliance goal.

Statutory and Regulatory Authority

The Water Development Component operates under the following statutory and regulatory authority:

Statutory
AS 46.15.020-.970
AS 35.05.965
As 46.17.010-.900
AS 41.08

Regulatory
11AAC 05.010 and 11 AAC 93.040-.970

Contact Information

Contact: Richard Mylius, Director
Phone: (907) 269-8600
Fax: (907) 269-8904
E-mail: dick.mylius@alaska.gov

Water Development
Component Financial Summary

All dollars shown in thousands

	FY2008 Actuals	FY2009 Management Plan	FY2010 Governor
Non-Formula Program:			
Component Expenditures:			
71000 Personal Services	1,237.6	1,644.5	1,676.8
72000 Travel	37.7	53.7	53.7
73000 Services	104.4	164.2	164.2
74000 Commodities	25.7	31.3	31.3
75000 Capital Outlay	0.0	0.0	0.0
77000 Grants, Benefits	0.0	0.0	0.0
78000 Miscellaneous	0.0	0.0	0.0
Expenditure Totals	**1,405.4**	**1,893.7**	**1,926.0**
Funding Sources:			
1002 Federal Receipts	2.5	43.8	44.0
1004 General Fund Receipts	951.2	1,138.5	1,163.8
1005 General Fund/Program Receipts	84.4	91.3	93.0
1007 Inter-Agency Receipts	9.1	65.3	66.3
1061 Capital Improvement Project Receipts	30.8	131.7	134.2
1108 Statutory Designated Program Receipts	59.0	116.6	118.2
1156 Receipt Supported Services	268.4	306.5	306.5
Funding Totals	**1,405.4**	**1,893.7**	**1,926.0**

Estimated Revenue Collections

Description	Master Revenue Account	FY2008 Actuals	FY2009 Management Plan	FY2010 Governor
Unrestricted Revenues				
General Fund Program Receipts	51060	3.9	0.0	0.0
Receipt Supported Services	51073	5.1	0.0	0.0
Unrestricted Total		**9.0**	**0.0**	**0.0**
Restricted Revenues				
Federal Receipts	51010	2.5	43.8	44.0
Interagency Receipts	51015	9.1	65.3	66.3
General Fund Program Receipts	51060	84.4	91.3	93.0
Statutory Designated Program Receipts	51063	59.0	116.6	118.2
Receipt Supported Services	51073	268.4	306.5	306.5
Capital Improvement Project Receipts	51200	30.8	131.7	134.2
Restricted Total		**454.2**	**755.2**	**762.2**

Estimated Revenue Collections

Description	Master Revenue Account	FY2008 Actuals	FY2009 Management Plan	FY2010 Governor
Total Estimated Revenues		**463.2**	**755.2**	**762.2**

Summary of Component Budget Changes
From FY2009 Management Plan to FY2010 Governor

All dollars shown in thousands

	General Funds	Federal Funds	Other Funds	Total Funds
FY2009 Management Plan	**1,229.8**	**43.8**	**620.1**	**1,893.7**
Adjustments which will continue current level of service:				
-Correct Unrealizable Fund Sources in the Salary Adjustment for the Existing Bargaining Unit Agreements	5.6	0.0	-5.6	0.0
-FY2010 Wage and Health Insurance Increases for Bargaining Units with Existing Agreements	21.4	0.2	10.7	32.3
FY2010 Governor	**1,256.8**	**44.0**	**625.2**	**1,926.0**

Water Development
Personal Services Information

Authorized Positions			Personal Services Costs	
	FY2009 Management Plan	FY2010 Governor		
Full-time	17	17	Annual Salaries	1,112,288
Part-time	0	0	COLA	44,672
Nonpermanent	0	0	Premium Pay	0
			Annual Benefits	578,377
			Less 3.37% Vacancy Factor	(58,537)
			Lump Sum Premium Pay	0
Totals	**17**	**17**	**Total Personal Services**	**1,676,800**

Position Classification Summary

Job Class Title	Anchorage	Fairbanks	Juneau	Others	Total
Engineering Assistant II	1	0	0	0	1
Hydrologist II	2	1	1	0	4
Hydrologist III	1	0	0	0	1
Natural Resource Mgr I	1	0	1	0	2
Natural Resource Mgr II	1	0	0	0	1
Natural Resource Mgr III	1	0	0	0	1
Natural Resource Spec II	2	0	1	0	3
Natural Resource Spec III	2	1	0	0	3
Tech Eng II / Architect II	1	0	0	0	1
Totals	**12**	**2**	**3**	**0**	**17**